

ABSTRACT

A semiconductor laser device having a waveguide constructed in a stack of layers including, on a substrate (101) transparent and having a refractive index n_s for laser light, a first clad layer (103) of a refractive index n_{c1} , a second clad layer (104) of a refractive index n_{c2} , a third clad layer (105) of a refractive index n_{c3} , a first conductivity type guide layer (105) of a refractive index n_g , an active quantum well layer (107), a second conductivity type guide layer (109), a second conductivity type clad layer (110), and a second conductivity type contact layer (111) deposited in this order, wherein the waveguide has an effective refractive index n_e , and a relationship of $n_{c2} < (n_{c1}, n_{c3}) < n_e < (n_s, n_g)$ is satisfied.